

Automated Parts Storage Keeps JetBlue Flying

Customized automated retrieval system protects & stores vital airline parts

Key Features Include:

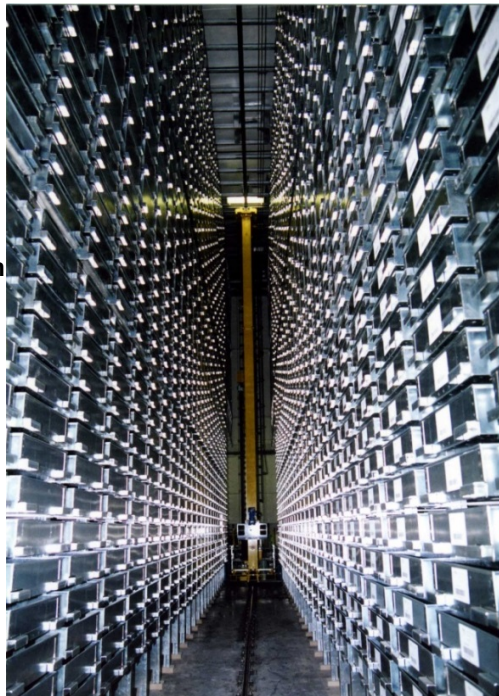
- **OSHA & Airline Industry Compliant**
- **User Friendly**
- **Minimal Order Cycle Times**
- **Low Maintenance Costs**
- **Adaptable to Emergencies**
- **Customized Fire Suppression**

A New Construction

Recently, JetBlue, the low-cost, passenger-oriented airline, broke ground on a 100,000 sq. ft. support operations and training facility. Located in Orlando, FL, the airline’s new location would serve as a vital hub for training, distribution, and equipment repair. Due to the massive distribution responsibility the new construction would undertake, it was essential that JetBlue obtain an automated materials handling system that would effectively store and provide parts for critical flight equipment. In addition, this new materials handling system would have to efficiently operate under stringent OSHA and industry regulations, have low maintenance requirements, and prove user friendly to JetBlue staff.

Selecting A System

After closely working with Muratec, executives at JetBlue decided that an Automated Storage & Retrieval System (AS/RS) best suited the needs of the new construction. A versatile integration system, **Muratec’s** AS/RS, provided several beneficial capabilities including: significantly minimal cycle times, worker safety & operator control, and the ability to store various shaped parts.



Storage/retrieval queues can be overridden to retrieve a repair part needed immediately.

Dividers in the totes allow for small parts storage enabling 47,644 storage locations

System Specifications

Following exploration of Muratec’s several AS/RS layout options, JetBlue chose a one aisle, mini-load AS/RS. The system comprises of 62 bays and 40 levels; initially totaling 4,960 locations. Additionally, the system utilizes two stacker cranes, each with an extractor, to store and retrieve totes. Allowing for small parts storage, each tote contains dividers which enables a total of 47,644 storage locations.

Reliability & Customization

Overall, not only did the AS/RS fulfill the severe mechanical needs of the airline, but it also provided an ease of operation and various customized features. For example, parts retrieval was simplified by forming two administrative terminals that allow supervisors to enter needed parts into the automated system for a particular day’s workload. Confirmation of the right parts are then realized when workers scan a barcode on the tote exterior. Making the process even more efficient, touch screens display the location of desired parts within the tote, and confirm that the retrieval operation is complete. Additionally, built in safety features are also included in the system; alerting the workers by touch screen if the tote exceeds safe height and weight requirements for pickup. To suit JetBlue’s needs in emergency situations, Muratec built the AS/RS with the capability to give system administrators control. For instance, if a vital part is needed for an aircraft sitting at a terminal, the AS/RS allows workers to gain the needed part quickly by overriding other parts orders in the system’s queue. This has allowed JetBlue the ability to save crucial time and has expedited aircraft maintenance. Regarding fire safety, the AS/RS system contains a total fire suppression system including a one hour fire proof enclosure and deluge sprinkler systems at conveyer entrances.

Muratec’s Automated Retrieval & Storage System’s innovative performance and reliability has provided JetBlue’s abundant facility with an efficient blend of safety, dependability, speed, and control.